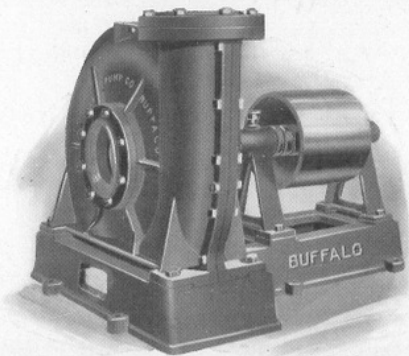


# BUFFALO

## Single Suction Class "M" Centrifugal Pumps



Bulletin No. 954

**Buffalo Steam Pump Co.**  
**Buffalo, N. Y.**

New York  
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Cleveland  
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**Canadian Blower & Forge Co., Ltd.**  
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## Horizontal Class "M" Single Suction Centrifugal Pumps

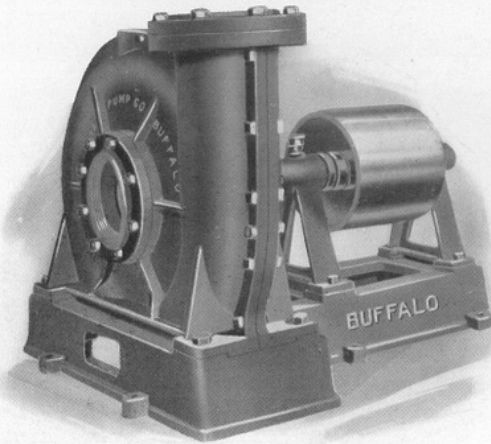


Fig. 630  
Size 2" and Larger

The Buffalo Class "M" open impeller single suction pump is used extensively for general purposes and all drainage service not exceeding 65 feet total head. Large pulley is supported on either side by long bearings furnished with brass grease cups. Only genuine babbitt metal is used in bearings. Extra long packing gland on shaft is provided to insure operation without attention. Companion flanges are furnished for both suction and discharge openings.

Buffalo Class "M" Pumps are built for pulley drive only and not for direct connection to engine or motor.

With pumps equipped with hand primer it is not necessary to use a foot valve nor to fill the pump and suction pipe with water from a pail before starting pump. It is only necessary to operate the Hand Pump Primer handle,

which will draw the air from the suction pipe, and the water will rise and fill the pipe. The primer then takes water from the suction pipe and fills the pump casing, completing the priming so pump is ready to operate. This device is one of great convenience.

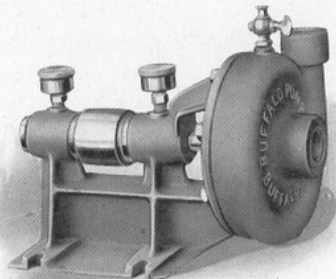


Fig. 629  
Sizes 1½" and Smaller

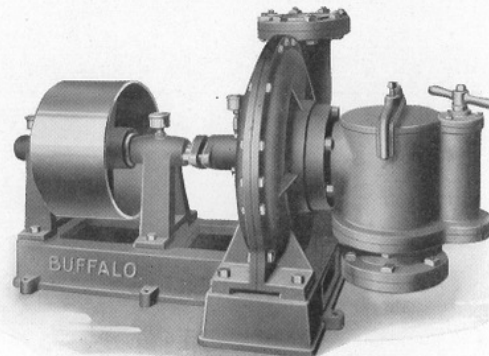


Fig. 632  
Equipped with Hand Primer

Casings Good for 50 to 65 feet Pressure.

### SPECIFICATIONS

**Casing:** Cast iron; divided on vertical center line on 2" and larger, Fig. 630; solid, with side plate on 1½" and smaller, Fig. 629.

**Impeller:** Cast iron, open type, Fig. 914.

**Shaft:** Steel.

**Bearings:** Babbitt lined, provided with grease cups.

**Gland:** Cast iron.

**Companion Flanges:** Furnished on suction and discharge openings.

**Finish:** All pumps painted, filled and rubbed down. Bright parts exposed to weather protected by a slushing compound.

## Vertical Class "M" Centrifugal Pumps

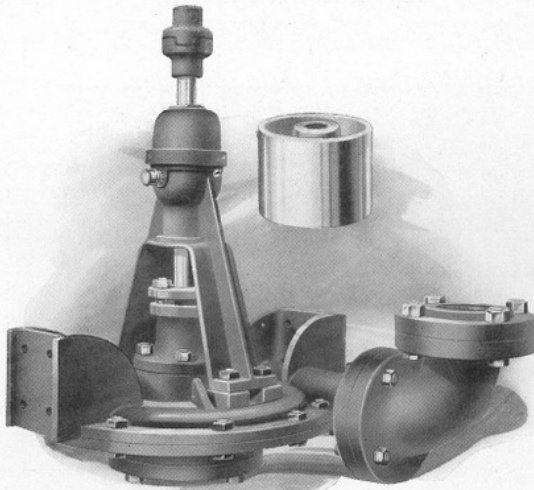


Fig. 1055

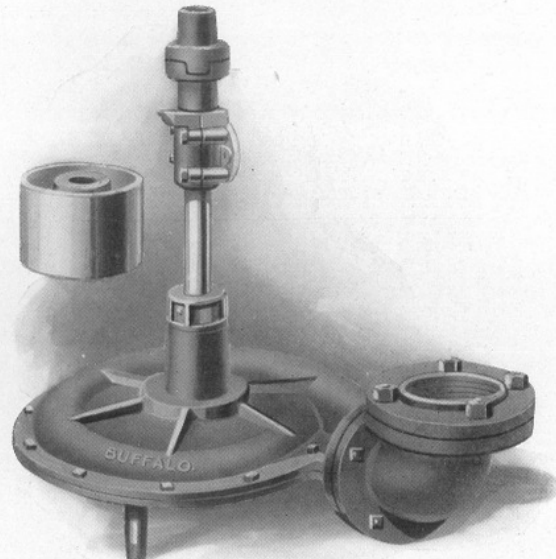


Fig. 1021

The Buffalo Vertical Class "M" Suction Type Centrifugal Pump (Fig. 1055) is designed primarily for installation in wooden framework, as shown on page 7, and can also be direct connected to driven casing in bottom of well.

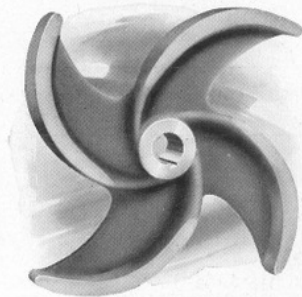


Fig. 914

The Buffalo Vertical Class "M" Submerged Type Centrifugal Pump (Fig. 1021) is suitable for submerged operation.

Upturn elbow on discharge, one pair of jaw couplings, and one pulley are standard equipment with either type.

Shaft bearings should be placed every 5 or 6 feet of shafting.

Class "M" Centrifugal Pumps have an open type impeller, as shown in Fig. 914. It is of heavy construction and the design permits the pump to handle small foreign matter without danger of clogging. Especially suitable for low head work.

**Casings Good for 50 to 65 Feet Pressure.**

### SPECIFICATIONS.

**Casing:** Cast iron, divided.

**Impeller:** Cast iron, open type. Fig. 914.

**Suction:** Bottom suction opening. Flanged opening on suction type, Fig. 1055.

**Pads:** Furnished on suction type, Fig. 1055, for bolting to framework.

**Feet:** Furnished on submerged type, Fig. 1021.

**Bearings:** Vertical type. See page 5.

**Gland:** Cast iron.

**Couplings:** Jaw type.

**Finish:** All pumps painted, filled and rubbed down. Bright parts exposed to weather protected by a slushing compound.



## Ratings of Class "M" Centrifugal Pumps

Horizontal Type		Vertical Suction Type		Vertical Submerged Type		Pipe Sizes, Inches			Capacity—Gallons per Minute	Size of Pulley, inches	
Code Word, Regular Fitted	Figure Number	Code Word, Regular Fitted	Figure No.	Code Word, Regular Fitted	Figure No.	Size of Pump, Inches	Suction	Discharge		Diameter	Face
Mpmyy	629					¾	1	¾	15	2½	2
Mpmyq	629					1	1½	1	25	2½	2
Mpmab	629	Mtnat	1055	Mttag	1021	1½	2	1½	75	4	4
Mpmbe	630	Mtnde	1055	Mtleh	1021	2	2½	2	125	5	5
Mpmae	630	Mtnhi	1055	Mtlj	1021	2½	3	2½	200	6	5
Mpmad	630	Mtnw	1055	Mtlk	1021	3	4	3	300	7	6
Mpmef	630	Mtnlo	1055	Mtlym	1021	4	5	4	500	8	8
Mpmig	630	Mtnox	1055	Mtmah	1021	5	6	5	800	10	10
Mpmoh	630	Mtnpu	1055	Mtmik	1021	6	8	6	1200	11½	10
Mpmuj	630	Mtny	1055	Mtmol	1021	8	10	8	2000	12	12
Mpmky	630	Mtnuz	1055	Mtmyn	1021	10	12	10	3000	15	12

Add Code Word Jeesf for Brass Impeller.

Add Code Word Jehby for Brass Gland.

Add Code Word Jexyz for Hand Primer, Fig. 632.

**Speed in Revolutions per Minute (R. P. M.) and Motor or Engine Brake Horse Power (B. H. P.) Required to Operate Pump.**

Size of Pump, Inches	Capacity, Gallons per Minute	TOTAL HEAD IN FEET									
			10	15	20	25	30	35	40	45	50
¾	15	R.P.M.	1500	1700	1950	2150	2300	2500	2600	2750	2900
		B.H.P.	½	¾	¾	1	1	1	1½	1½	1½
1	35	R.P.M.	2200	2350	2500	2600	2750	2850	3000	3100	3200
		B.H.P.	¾	¾	1	1½	1½	1½	2	2	2
1½	75	R.P.M.	800	930	1060	1180	1290	1400	1480	1580	1660
		B.H.P.	1	1	1½	1½	2	2	3	3	5
2	125	R.P.M.	950	1025	1100	1150	1200	1275	1325	1375	1450
		B.H.P.	2	2	3	3	3	3	5	5	5
2½	200	R.P.M.	800	850	900	975	1025	1100	1150	1200	1250
		B.H.P.	2	3	3	5	5	5	7½	7½	10
3	300	R.P.M.	900	950	1000	1050	1100	1150	1200	1250	1300
		B.H.P.	3	5	5	5	7½	7½	7½	10	15
4	500	R.P.M.	750	800	850	900	950	1000	1050	1075	1125
		B.H.P.	5	7½	7½	10	10	10	15	15	15
5	800	R.P.M.	650	700	750	800	850	900	950	1000	1050
		B.H.P.	7½	10	10	15	15	15	20	20	25
6	1200	R.P.M.	550	600	650	700	750	800	850	900	950
		B.H.P.	10	15	15	20	20	25	25	30	35
8	2000	R.P.M.	420	455	495	525	555	590	620	650	680
		B.H.P.	15	20	25	25	30	35	40	50	50
10	3000	R.P.M.	350	385	420	445	470	500	525	550	575
		B.H.P.	25	30	35	40	40	50	60	60	75

Brake Horse Power is based on handling liquid having 1.0 specific gravity.

## Sectional Views of Class "M" Centrifugal Pumps

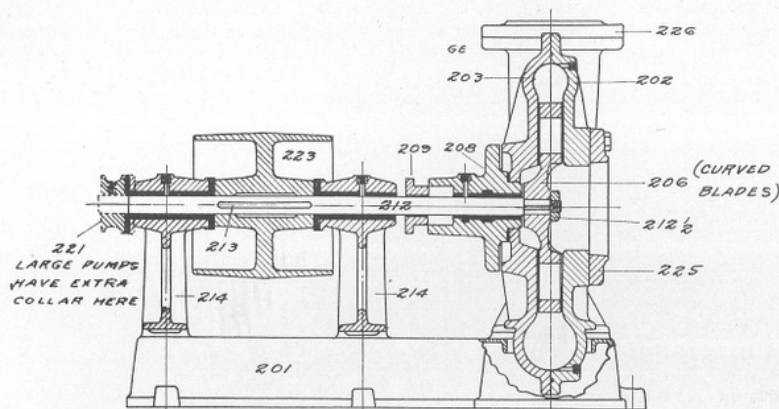


Fig. 653

Sectional View of Fig. 630 Horizontal Class "M" Pumps

- 201 Subbase
- 202 Suction Half Shell
- 203 Stuff. Box Half Shell
- 206 Impeller
- 208 Stuffing Box
- 209 Gland
- 212 Shaft
- 212½ Shaft Nut and Key
- 213 Feather Key
- 214 Bearing Stand
- 221 Thrust Collar
- 223 Pulley
- 225 Suction Flange
- 226 Discharge Flange

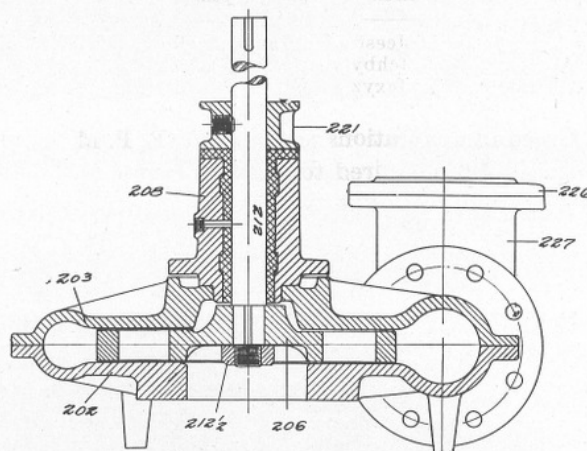


Fig. 655

Sectional View of Fig. 1021 Vertical Submerged Class "M" Pumps

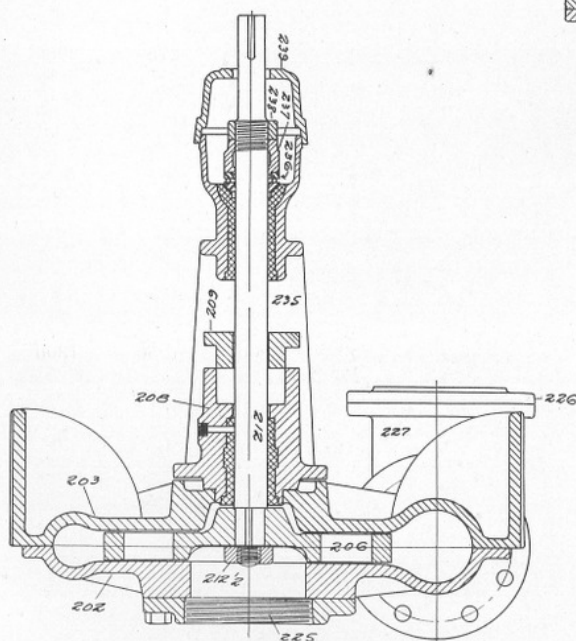


Fig. 654

Sectional View of Fig. 1055 Vertical Non-Submerged Class "M" Pumps

- 227 Discharge Elbow
- 230 Guide Bearing Base
- 231 Guide Bearing Cap
- 235 Thrust Bearing Standard
- 236 Ball Bearing Thrust
- 237 Thrust Bearing Nut
- 238 Thrust Bearing Check Nut
- 239 Thrust Bearing Cover

When ordering repairs, state size of pump, shop number which is stamped on end of shaft and also on top of shell, name and number of part wanted.

# Methods of Installation of Class "M" Centrifugal Pumps

## Horizontal Pulley Pumps

The following illustration shows a pulley driven pump with a gas or gasoline engine, for irrigating purposes. Be careful that the foot valve at the end of the suction pipe is in a vertical position, so that it will work properly. Use a Buffalo Foot Valve and Strainer to prevent pump becoming clogged and to avoid priming each time pump is started.

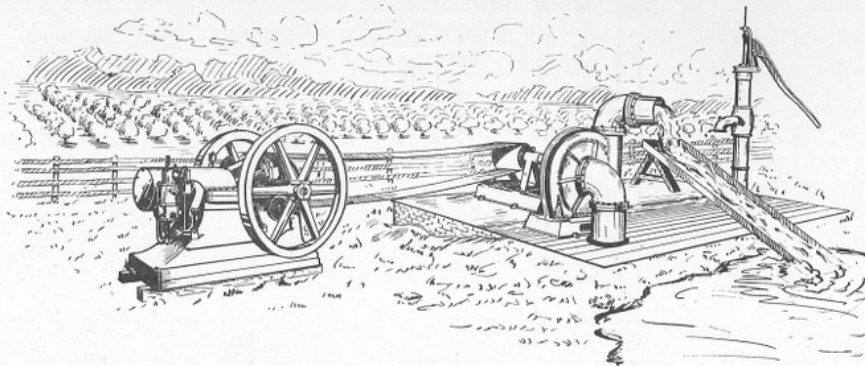


Fig. 633

## Vertical Suction Pumps

These pumps are generally mounted in a wooden frame which holds the pump, the bearings, the shaft and the pulley, the latter being connected by quarter turn belt to a gas or gasoline engine, as shown in the illustration. **We do not supply wooden framework.** Always specify length of shaft between pulley and center of pump when asking for information or estimates.

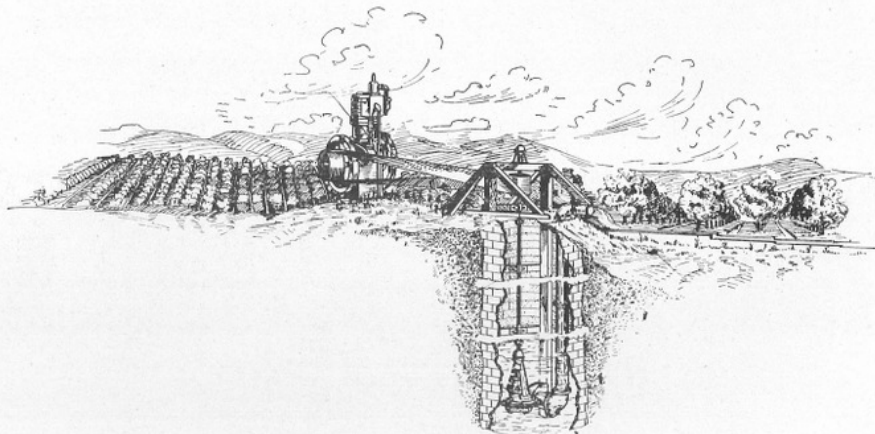


Fig. 634

Discharge piping, elbows, valves, etc., are furnished only on special order—and not as standard equipment.



# Buffalo Suction Type Class "M" Centrifugal Pumps In Wooden Framework

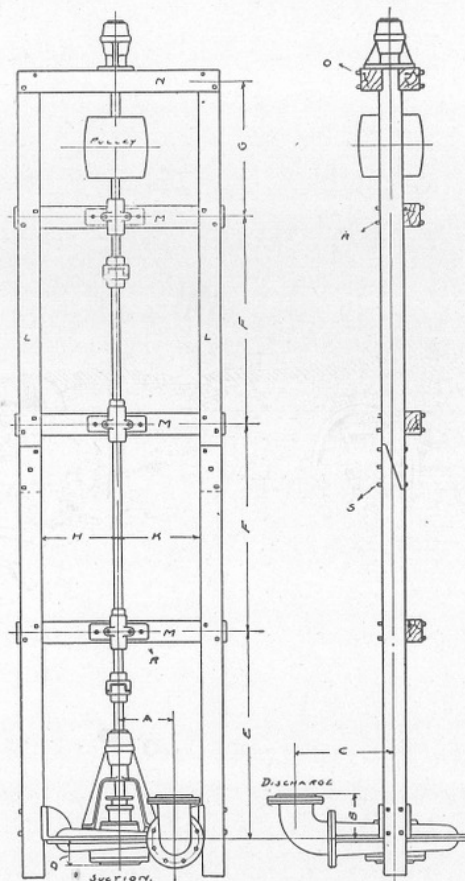


Fig. 1057

## APPROXIMATE DIMENSIONS OF FRAMES REQUIRED.

Size	Suction	Discharge	Pulley		Shaft	Pump Dimensions				Frame					Size of Timber			Size and Length of Bolts			
			Diameter	Face		A	B	C	D	E	F	G	H	K	L	M	N	O	P	R	S
1 1/2	2	1 1/2	4	4	1 1/4	5 1/8	5	10 3/4	2 3/4	3'0"	5'0"	12	8 1/2	9	3x3	3x3	2x3	1/2 x 7	1/2 x 7	1/2 x 5	1/2 x 3 3/4
2	2 1/2	2	5	5	1 1/4	5 1/8	5 1/2	12	2 3/4	3'0"	5'0"	12	8 1/2	9	3x3	3x3	2x3	1/2 x 7	1/2 x 7	1/2 x 5	1/2 x 3 3/4
2 1/2	3	2 1/2	6	5	1 3/8	7 3/8	6 1/2	13 1/4	3 1/4	3'6"	6'0"	16	10	11	4x4	4x4	2x4	1/2 x 8	1/2 x 9	1/2 x 6	1/2 x 4 5/8
3	4	3	7	6	1 3/8	7 3/8	6 1/2	13 5/8	3 1/4	3'6"	6'0"	16	10	11	4x4	4x4	2x4	1/2 x 8	1/2 x 9	1/2 x 6	1/2 x 4 5/8
4	5	4	8	8	1 1/2	8 3/4	7 1/4	16	3 1/2	3'6"	6'0"	20	12	13	4x4	4x4	3x4	5/8 x 10	5/8 x 9	5/8 x 6	5/8 x 4 3/4
5	6	5	10	10	1 5/8	10	8 1/4	19	4	4'0"	6'0"	24	13 1/2	15	6x6	4x4	3x4	5/8 x 12	5/8 x 11	5/8 x 6	5/8 x 6 3/4
6	8	6	11 1/2	10	1 3/4	11 3/4	10 1/2	23	4 5/8	4'0"	6'0"	24	15 1/2	17	6x6	4x6	4x4	3/4 x 14	3/4 x 11	3/4 x 6 1/2	3/4 x 7
8	10	8	12	12	2	14 3/4	11 1/4	24	5 1/2	4'6"	8'0"	30	18 1/2	20 1/2	6x6	4x6	4x6	3/4 x 14	3/4 x 11	3/4 x 6 1/2	3/4 x 7
10	12	10	15	12	2 1/4	17 3/4	11	26 1/2	7	4'6"	8'0"	30	21 1/2	24	8x8	6x6	4x6	3/4 x 16	1x15 1/2	3/4 x 6 1/2	1x9 1/4

Blue prints of Buffalo Suction Type Class "M" Pumps certified correct for construction purposes will be furnished on request for orders placed with us. They should be obtained before framework is built unless the pump is on the ground. **We do not furnish the framework.**

The "BUFFALO" line includes

STEAM PUMPS  
VACUUM PUMPS  
CONDENSERS  
POWER PUMPS  
CENTRIFUGAL PUMPS

"BUFFALO" pumps are used extensively for

Acid Plants  
Bilge and Drainage  
Boiler Feeding  
Chemical Plants  
General Water Supply  
Heating Systems  
Irrigation Projects  
Marine Service  
Mine Drainage  
Pulp and Paper Mills  
Reclamation Projects  
Sewage Disposal

**SCANNED BY: AEM OF LOCKPORT NY USA**

**POSTED ON: SEPTEMBER 27, 2016**

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